

Programme

Calcium and Contractile Proteins

Ebashi S, Kuwayama H: Myosin light chain kinase (MLCK) vs. leiotonin

Kohama K: Myosin light chain kinase (MLCK) of chicken gizzard exerts an inhibitory effect on the actin-myosin interaction of smooth muscle by binding to actin

Kwon S-C, Hai C-M, Murphy RA: Control of crossbridge cycling by Ca^{2+} -dependent phosphorylation in fast, phasic smooth muscle

Tanaka T, Mino T, Naka M: Calponin phosphorylation and vascular smooth muscle contraction

Ohmi K, Sakurai T, Nakamura S, Nonomura Y: Mode of existence of 74 kDa protein, one of the gelsolin family in developmental stage of vascular smooth muscle

Calcium and Second Messengers

Jones AW, Liu Y, Magliola L, Stepke B, Wycoff DE: Endothelin-1 and norepinephrine phospholipid-signalling mechanisms in large and small arteries

Chen Q, Van Breemen C: The sarcoplasmic reticular calcium pump contributes to Ca^{2+} extrusion from vascular smooth muscle

Meininger GA, Moore EDW, Fay FS: Effect of activation on the three-dimensional distribution of protein kinase C in smooth muscle

Karaki H, Ozaki H, Hori M, Kitijima S, Haranda K, Abe F, Endoh M: Calcium localization in smooth muscle

Iino M, Yamazawa T, Kasai H, Endo M: All-or-none like calcium release from intracellular stores by agonists in smooth muscle cells

Moreland RS: G-protein dependent enhancement of vascular smooth muscle myofilament Ca^{2+} sensitivity

Endothelium and Nitric Oxide

Bohr DF: Nitric oxide release from vascular smooth muscle in response to ultraviolet light

Johansson B, Bülow A, Ljung B: Endothelium dependent relaxing influence on vascular smooth muscle is impaired in the aorta of the diabetic, obese mouse

Toda N: Interaction of nitroxidergic nerve with cholinergic and noradrenergic nerves in blood vessel

Ion Channels, Ion Pumps

Nilsson H, Jensen PE, Mulvany MJ: Minor role for direct adrenoceptor-mediated calcium entry in rat mesenteric resistance arteries

Godfraind T, Morel N: The state of L-Ca^{2+} channels in hypertensive vessels

Inoue R, Ito Y: The physiological and pharmacological features of neurotransmitter-activated nonselective cation channels (nscc) in smooth muscle

Blaustein MP, Borin ML, Juhaszova M, Tribe RM: Role of Na/Ca exchange in regulating sarcoplasmic reticulum calcium and cell responsiveness in vascular smooth muscle

Pharmacology

Zhou Q: The contractile mechanisms of sodium metavanadate in isolated rat aorta

Kobayashi Y, Amenta F, Hattori J, Fujiwara M: Localization of dopamine D_1 receptors in endothelium of rabbit pulmonary artery

Muramatsu I: Two distinct α_1 -adrenoceptor subtypes in rabbit thoracic aorta

Masaki T: Cellular function of endothelin receptor

Hidaka H, Kobayashi R, Mizutani A: The biochemical and pharmacological characterization of a 36 kDa-microfibril-associated protein from bovine aorta

Zhou Q, Satake N, Shibata S: The contractile mechanisms of sodium metavanadate in isolated rat aorta

Physiological Mechanisms

Bevan JA, Joyce EH: Flow regulation of vascular tone

Watts SW, Tsai M-L, Loch-Carusio R, Webb RC: Gap junctions mediate agonist-induced oscillatory contractions in vascular smooth muscle

Goto K, Sukurai T, Abe Y, Kasuya Y: effects of endothelin-1, basic fibroblast growth factor and activin a on mitogenesis and mitogen-activated protein kinase in Swiss 3T3 fibroblasts

Quilley J, McGiff JC, Mahboubi K, Fulton D: Coronary vasodilator response to bradykinin: role of cytochrome P450 and K^+ conductance

Matsuda Y: Biochemical and pharmacological profiles of novel antagonists for atrial natriuretic peptide and endothelin subtype b receptors

This symposium, held in February 1994 in Honolulu, is the third occasion that investigators from Japan, Europe and the United States have come together for the purpose of examining mechanistic events controlling vascular smooth muscle function. The two previous symposiums were held in the same location in 1977 and 1989. The current symposium first dealt with contractile proteins, calcium metabolism and cellular signalling systems. It then reviewed the regulatory role of nitric oxide and other endothelial factors on contraction and proliferation of vascular smooth muscle cells. Finally, neurogenic, pharmacological and myogenic mechanisms were surveyed. Organizers of the Symposium were Drs. H. Karaki and Y. Nonomura in Japan and Drs. D.F. Bohr and R.C. Webb in the United States. Dr. S. Shibata served as the local organizer. The symposium was sponsored by the National Science Foundation and the Japan Society for the Promotion of Science. Their support was supplemented by the following organizations:

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Yamanouchi Pharmaceuticals Co., Ltd.

Essential findings presented at the symposium are encapsulated in the accompanying abstracts. Complete manuscripts that have been submitted and reviewed by the normal process will be published in the Journal of Vascular Research as they are accepted.

Author Index

Includes only the abstracts of the Third United States - Japan Symposium on Cellular and Molecular Aspects of Vascular Smooth Muscle Function

Abe, Y. 297
Abe, F. 299
Amenta, F. 299

Bevan, J.A. 295
Blaustein M.P. 295
Bohr, D. 295
Borin, M.L. 295
Breemen, C. van 296
Bülow, A. 298

Chen, Q. 296

Ebashi, S. 296
Endo, M. 298, 299

Fay, F.S. 301
Fujiwara, M. 299
Fulton, D. 303

Godfraind, T. 297
Goto, K. 297

Hai, C.-M. 300
Harada, K. 299
Hattori, K. 299
Hidaka, H. 297
Hori, M. 299

Iino, M. 298
Inoue, R. 298
Ito, Y. 298

Jensen, P.E. 303
Johansson, B. 298

Jones, A.W. 299
Juhaszova, M. 295

Karaki, H. 299
Kasai, H. 298
Kasuya, Y. 297
Kitajima, S. 299
Kobayashi, R. 297
Kobayashi, Y. 299
Kohama, K. 300
Kubaszewski, E. 300
Kuwayama, H. 296
Kwon, S.-C. 300

Liu, Y. 299
Ljung, B. 298
Loch-Caruso, R. 305

Magliola, L. 299
Mahboubi, K. 303
Malinski, T. 300
Masaki, T. 301
Matsuda, Y. 301
McClain, S. 300
McGiff, J.C. 303
Meininger, G.A. 301
Mino, T. 304
Mizutani, A. 297
Moore, E.D.W. 301
Morel, N. 297
Moreland, R.S. 302
Mulvany, M.J. 303
Muramatsu, I. 302
Murphy, R.A. 300

Naka, M. 304
Nakamura, S. 303
Nilsson, H. 303
Nonomura, Y. 303

Ohmi, K. 303
Ozaki, H. 299

Peters, A. 300

Quilley, J. 303

Sakurai, T. 297
Satake, N. 305
Shibata, S. 305
Stepke, B. 299

Tanaka, T. 304
Toda, N. 304
Tribe, R.M. 295
Tsai, M.-L. 305

Watts, S.W. 305
Webb, R.C. 305
Wycoff, D.E. 299

Yamazawa, T. 298
Yuasa, U. 304

Zhou, Q. 305

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Research Papers		
London, S.M.; Mayberg, M.R. (Seattle, Wash.)	Kinetics of Bromodeoxyuridine Uptake by Smooth Muscle Cells after Arterial Injury	247
Bian, K.; Hermsmeyer, K. (Portland, Oreg.)	Glyburide Actions on the Dihydropyridine-Sensitive Ca^{2+} Channel in Rat Vascular Muscle	256
Zhu, Z.; Tepel, M.; Neusser, M.; Zidek, W. (Münster)	Mechanism of the Action of Angiotensin-Converting Enzyme Inhibitors on Agonist-Induced Ca^{2+} Influx	265
Xiong, Z.; Sperelakis, N.; Fenoglio-Preiser, C. (Cincinnati, Ohio)	Regulation of L-Type Calcium Channels by Cyclic Nucleotides and Phosphorylation in Smooth Muscle Cells from Rabbit Portal Vein	271
Rekhter, M.D.; Gordon, D. (Ann Arbor, Mich.)	Cell Proliferation and Collagen Synthesis Are Two Independent Events in Human Atherosclerotic Plaques	280
Bouskela, E.; Cyrino, F.Z.G.A. (Lund)	Effects of Buflomedil on Spontaneous Vasomotion and Mean Arteriolar Internal Diameter in the Hamster Cheek Pouch	287
Abstracts		
	3rd United States-Japan Symposium on Cellular and Molecular Aspects of Vascular Smooth Muscle Function February 1-3, 1994, Honolulu, Hawaii, USA	295
	Author Index (Abstracts)	308

